AMENDMENTS TO THE TITLE:

Please amend the Title to read as follows:

Power Storage Device Having a Nitroxyl Polymer in a Cathode and a Lithium or Lithium Alloy Anode

HAYES SOLOWAY P.C.
3450 E. SUNRISE DRIVE,
SUITE 140
TUCSON, AZ 85718
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

AMENDMENTS TO THE SPECIFICATION:

Please amend the paragraph beginning at page 1, line 5, as follows:

~~TECHNICAL FIELD~~

Field of the Invention

The present invention relates to a power storage device with excellent cycle property.

Please amend the paragraph beginning at page 1, line 9, as follows:

~~BACKGROUND ART~~

Description of the Related Art

A power storage device using a nitroxyl polymer as a cathode active material has been proposed. For example, in the conventional power storage device described in Figure 1 of Patent Document 1, the power storage device is constructed by facing a cathode containing a nitroxyl polymer as an active material with an anode through a separator sandwiched therebetween.

Please amend the paragraph bridging pages 1 and 2, beginning at page 1, line 19, as follows:

~~DISCLOSURE OF THE INVENTION~~

~~(Problem to be Solved by the Invention)~~

Summary of the Invention

A power storage device using a lithium or lithium alloy anode as the anode of the power storage device disclosed in Patent Document 1 has a problem that the capacity of the device greatly decreases by repeating a charge-discharge cycle. The cause of the problem is that lithium precipitates in the form of dendrite on the surface of the lithium or lithium alloy anode when the power storage device is charged, producing dead lithium that can not contribute to discharge. An object of the present invention is to provide a power storage device with

HAYES SOLOWAY P.C.
3450 E. SUNRISE DRIVE, SUITE 140
TUCSON, AZ 85718
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

excellent cycle property, using a lithium or lithium alloy anode as an anode active material and a nitroxyl polymer as a cathode active material.

Please amend the paragraph beginning at page 3, line 18, as follows:

~~BEST MODE FOR CARRYING OUT THE INVENTION~~

Detailed Description of the Invention

<Structure>

Next, the embodiments of the present invention will be more specifically explained with reference to the drawings.

Please amend the paragraph bridging pages 3 and 4, beginning at page 3, line 24, as follows:

A power storage device according to the present invention, for example, has the structure shown in Figure 1. The power storage device shown in Figure 1 is characterized in that an anode 3 ~~consisted~~ consisting of lithium or a lithium alloy is in direct contact with a cathode 4 containing a nitroxyl polymer used as a cathode active material. The power storage device of the first embodiment has a ~~shape of~~ coin-type shape. In the first embodiment, poly (2,2,6,6-tetramethylpiperidinoxy methacrylate) (PTMA) represented by chemical formula (1) is used as the nitroxyl polymer used as the cathode active material. As the cathode 4 containing the nitroxyl polymer according to the first embodiment, a PTMA electrode containing an electrolyte is used. As the electrolyte according to the first embodiment, a mixture solvent of ethylene carbonate (EC) and diethyl carbonate (DEC) (the volume ratio of ED/DEC is 3/7) containing 1M $LiPF_6$ as a supporting salt is used. As a cathode collector 5 according to the first embodiment, an electrode having a conductive auxiliary layer containing carbon as a main component formed and integrated on an aluminum plate is used. As an anode metal collector 1 and a cathode metal collector 6 according to the fist embodiment, a metal collector made of a

HAYES SOLOWAY P.C.
3450 E. SUNRISE DRIVE,
SUITE 140
TUCSON, AZ 85718
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567

stainless steel plate is used. As an insulating packing 2 according to the first embodiment, a polypropylene insulating packing is used.

Please amend the paragraph beginning at page 6, line 2, as follows:

20 g of pure water was weighed and placed in a small homogenizer container. To the container, a binder (272 mg) ~~consisted~~ consisting of Teflon (registered trade mark) particles and cellulose was added and completely dissolved by stirring for 3 minutes. To the mixture, 2.0 g of acetylene black was added and stirred for 15 minutes to obtain a slurry. The obtained slurry was thinly applied onto an aluminum plate with the thickness of 20 micron, and dried at 100 °C to form a conductive auxiliary layer. The thickness of the conductive auxiliary layer was 10 microns. In this way, a cathode collector was obtained having the conductive auxiliary layer containing carbon as a main component formed and integrated with the aluminum plate.

Please amend the paragraph beginning at page 21, line 3, as follows:

<Example 1>

20 g of pure water was weighed and placed in a small homogenizer container. To the container, 272 mg of the binder ~~consisted~~ consisting of Teflon (registered trade mark) particles and cellulose was added and completely dissolved by stirring for 3 minutes. To the mixture, 2.0 g of acetylene black was added and stirred for 15 minutes to obtain a slurry. The obtained slurry was thinly applied onto an aluminum plate with the thickness of 20 micron, and dried at 100 °C to form a conductive auxiliary layer. The thickness of the conductive auxiliary layer was 10 microns. In this way, a cathode collector was obtained having the conductive auxiliary layer containing carbon as a main component formed and integrated with the aluminum plate.

HAYES SOLOWAY P.C.
3450 E. SUNRISE DRIVE,
SUITE 140
TUCSON, AZ 85718
TEL. 520.882.7623
FAX. 520.882.7643

175 CANAL STREET
MANCHESTER, NH 03101
TEL. 603.668.1400
FAX. 603.668.8567